

DERWENT-ACC-NO: 1975-28342W

DERWENT-WEEK: 197517

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TITLE: Semiconductor element mfr. - by  
etching a supported  
semiconductor wafer having a  
protective coating of e.g.  
vinyl acetate resin

PATENT-ASSIGNEE: NIPPON ELECTRIC CO[NIDE]

PRIORITY-DATA: 1969JP-0074688 (September 22,  
1969)

PATENT-FAMILY:

PUB-NO	PUB-DATE	
LANGUAGE	PAGES	MAIN-IPC
JP 75007912 B	March 31, 1975	N/A
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INT-CL (IPC): H01L000/00

ABSTRACTED-PUB-NO: JP 75007912B

BASIC-ABSTRACT:

A semiconductor element is mfd. by coating the surface of a semiconductor wafer having a number of semiconductor elements, with a protective coating of vinyl acetate., PVA or photosensitive resin, fixing the wafer to a support through a binder of wax, etching or lapping the other side of the wafer removing the wafer from the support, and removing the protective coating. Since the surface of the wafer (which is used to make transistors, integrated circuits etc) is coated with the protective coating, degradation of the wafer surface by the lapping or etching treatment, can be avoided.

**TITLE-TERMS: SEMICONDUCTOR ELEMENT  
MANUFACTURE ETCH SUPPORT SEMICONDUCTOR  
WAFER**

**PROTECT COATING VINYL ACETATE RESIN**

**DERWENT-CLASS: L03 U12**

protection tape (second holding member) having a flat ring and then the surface protection tape (first holding member) is removed, it is possible to prevent the semiconductor element from being damaged when the chip is picked up and mounted on a lead frame. In addition, the chips are held flat by the flat ring. Therefore mutual interference between the chips causing chipping is successfully prevented.

#### Detailed Description Text - DETX (41):

In the step shown in FIG. 9, the surface protection tape (adhesive sheet) 26 is used as the holding member. However, other holding members may be employed

which include a wax, an adsorption pad, a thermo-compression bonding sheet, a substrate coated with an adhesive material, a resist applied on a semiconductor element, and a combination thereof.

#### Detailed Description Text - DETX (42):

Although the surface protection tape 26 is attached to the pattern formation surface 21' of wafer 21, an extremely thin film may be interposed between the pattern formation surface 21' of wafer 21 and the surface protection tape 26. The extremely thin film is interposed as follows: a liquid called Silipecto II is first sprayed on the pattern formation surface of the wafer to form a coating film, and then, the surface protection tape is attached thereto. Alternatively, a single-sided or double-sided adhesive tape is attached to a flat plate and then a wafer is fixed thereon.